



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA-2019-0105]

Denial of Motor Vehicle Defect Petition, DP18-002

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Denial of petition for a defect investigation.

SUMMARY: This notice sets forth the reasons for the denial of a petition submitted on August 7, 2018, by Mr. Gary Weinreich (the petitioner) to NHTSA's Office of Defects Investigation (ODI). The petition requests that the Agency investigate alleged "premature and excessive frame corrosion" in model year (MY) 2002 through 2006 Toyota 4Runner vehicles. The petitioner bases his request upon his own experience with a MY 2005 Toyota 4Runner, a class action lawsuit settlement involving other Toyota products, and other complaints of underbody corrosion in Toyota 4Runner vehicles that he found in NHTSA's online complaint database. After reviewing the information provided by the petitioner regarding his vehicle, facts related to the class action lawsuit cited by the petitioner, and field data regarding underbody corrosion in Toyota 4Runner vehicles, NHTSA has concluded that there is insufficient evidence to pursue further action. Accordingly, the Agency has denied the petition.

FOR FURTHER INFORMATION, CONTACT: Mr. Gregory Magno, Vehicle Defects Division - D, Office of Defects Investigation, NHTSA, 1200 New Jersey Ave. SE, Washington, DC 20590 (telephone 202-366-5226).

SUPPLEMENTARY INFORMATION: By letter dated August 7, 2018, Mr. Gary Weinreich (the petitioner) submitted a petition requesting that the Agency "perform a high-priority investigation" of "premature and excessive frame corrosion" in model year (MY) 2002 through 2006 Toyota 4Runner vehicles. The petitioner bases his request upon a corrosion-related front suspension failure he experienced in his MY 2005 Toyota 4Runner, a class action lawsuit settlement involving other Toyota

products, and other complaints of underbody corrosion in Toyota 4Runner vehicles that he found in NHTSA's online complaint database.

On August 17, 2018, the Office of Defects Investigation (ODI) opened Defect Petition DP18-002 to evaluate the petitioner's request for an investigation. ODI has reviewed the following information as part of its evaluation: 1) information provided by the petitioner regarding his vehicle; 2) facts related to the class action lawsuit cited by the petitioner; 3) consumer complaint data regarding underbody corrosion in third- and fourth-generation Toyota 4Runner vehicles.

Scope: The petitioner's request for an investigation of premature frame corrosion in MY 2002 through 2006 Toyota 4Runner vehicles includes both third- and fourth-generation 4Runner vehicles that ranged from 12 to 17 years in age when the petition was filed. Toyota sold approximately 745,000 third-generation (MY 1996 through 2002), and approximately 603,000 fourth-generation (MY 2003 through 2009) 4Runner vehicles in the United States.¹

Petitioner's vehicle: On May 24, 2018, the petitioner experienced a front suspension failure while driving on the highway in a 2005 Toyota 4Runner vehicle that was nearing 13 years of service.² He reported the incident to NHTSA in a Vehicle Owner Questionnaire (VOQ) submitted on May 26, 2018 (NHTSA ID 11098055):

Yesterday, my wife and I and two friends riding with us narrowly escaped a fatal accident when the front suspension separated from the frame due to the corrosion problem. At highway speed, the vehicle began shaking violently and the steering was unable to properly control the vehicle. The vehicle went off the road after coming close to hitting an oncoming vehicle.

The petitioner alleged that this failure resulted from premature and excessive frame corrosion and provided service history information and photographs as supporting evidence.³ ODI reviewed the

¹ The analysis here will focus on the fourth-generation vehicles, which includes the Petitioner's vehicle, except where otherwise indicated.

² The front attachment bracket for the left lower control arm detached from the frame.

³ Gary Weinreich letter to Stephen Ridella, Ph.D., Director, Office of Defects Investigation, August 28, 2018.

information provided by the petitioner, as well as additional details contained in a lawsuit he filed against Toyota in December 2018.⁴

ODI found that the petitioner's vehicle had a history of general corrosion concerns throughout the undercarriage that were not isolated to the frame. The photographs showed that the vehicle undercarriage was seriously corroded at the time the incident occurred. The information indicates severe general corrosion of the vehicle undercarriage consistent with many years of severe use and exposure, but ODI has not found evidence showing a design or manufacturing defect in the vehicle.

The vehicle service history information that the petitioner provided supports these observations. Concerns with underbody corrosion on his vehicle were first noted by a Toyota dealer in a multi-point vehicle inspection performed on April 28, 2011. The invoice for that inspection noted "severe and excessive amount of rust on the undercarriage and on the drive shaft transmission." Two years later, on October 21, 2013, another multi-point inspection by a Toyota dealer observed further progression of underbody corrosion damage, noting: "rust on shocks/struts and other components," "rust on exhaust system," "both splash shields severely rusted," and "undercarriage very rusty."⁵ On July 17, 2017, approximately 10 months prior to experiencing the suspension failure incident, an independent repair facility performing a routine oil change and brake maintenance informed the petitioner of a concern with "excessive frame corrosion" on his vehicle.

The service history further indicates that corrosion concerns in the petitioner's vehicle were first observed in other underbody components (e.g., drive shaft transmission, exhaust, splash shields) and grew progressively worse over several years before the observation of "excessive frame corrosion" and subsequent suspension link failure. Photographs provided by the petitioner show that the vehicle's underbody was in poor condition when the failure occurred, with heavy corrosion throughout the vehicle underbody and multiple visible perforations in frame structural members.

⁴ *Gary Weinreich v. Toyota Motor Sales USA Inc., et al.*, Case No. 2:18-cv-03294-RMG, in the U.S. District Court for the District of South Carolina, Charleston Division.

⁵ Records provided by petitioner indicate that Toyota did not service the vehicle after October 2013.

The petitioner lives less than a mile from the ocean, where exposure to marine salts may lead to increased vehicle corrosion rates if vehicles are not regularly cleaned. While no information was provided regarding the use, care, and maintenance of the petitioner's vehicle, ODI has not received evidence that the vehicle received any repairs to address the noted corrosion concerns prior to the May 2018 front suspension failure.

Class action lawsuit: The petitioner cites a class action lawsuit settled by Toyota in 2017⁶ as evidence of the defect in his vehicle and states that 4Runner vehicles “were not included in the class-action lawsuit simply because there were insufficient complaints known to the counsel representing the class at the time it was formed.” ODI has reviewed the referenced lawsuit and does not agree with the petitioner's claims. The vehicles covered by the class action were equipped with frames manufactured by a specific supplier alleged to be using a defective electrocoating process over a certain manufacturing period. The subject 4Runner vehicles were not equipped with frames manufactured by that supplier.

Starting in 2008, Toyota conducted multiple service campaigns and warranty extension programs to address concerns with premature frame corrosion in certain vehicles equipped with frames supplied by Dana Holding Company (Dana).⁷ The combined field actions covered MY 1995 through 2010 Toyota Tacoma, MY 2000 through 2008 Tundra, and MY 2001 through 2007 Sequoia vehicles (“Dana frame vehicles”).⁸ Toyota took these actions after identifying quality concerns with the electrocoating processes in certain frames supplied by Dana that could lead to premature corrosion failures. In 2011, Dana settled a lawsuit with Toyota for warranty claim costs related to premature frame corrosion.⁹

These issues were presented in other litigation as well. A class-action lawsuit filed in Arkansas on October 3, 2014, alleged that MY 2005 through 2009 Toyota Tacoma vehicles lacked adequate rust

⁶ www.toyotaframesettlement.com.

⁷ In December 2009, Dana announced its agreement to sell its Structural Products Business to Metalsa, S.A. de C.V., <http://dana.mediaroom.com/index.php?s=26450&item=69875>.

⁸ The subject Tacoma, Tundra, and Sequoia vehicles were all manufactured at assembly plants located in the United States. Dana did not supply frames for any products manufactured in Japan.

⁹ Dana Holding Corporation Reaches Settlement with Toyota on Warranty Claims Related to Divested Structural Products Business, January 12, 2011, <http://dana.mediaroom.com/index.php?s=26450&item=69927>.

protection on the vehicles' frames, leading to premature corrosion failures.¹⁰ A separate class-action lawsuit filed in California on March 24, 2015, made similar claims.¹¹ The lawsuits were consolidated in a second amended complaint filed on November 8, 2016. The consolidated complaint covered MY 2005 through 2010 Toyota Tacoma, MY 2007 through 2008 Toyota Tundra, and MY 2005 through 2008 Toyota Sequoia vehicles. The second amended complaint stated that the vehicles that were the subject of the lawsuit were all equipped with frames manufactured by Dana using "the same defective process." The complaint alleged that, "The frames on the Toyota Vehicles are materially the same for purposes of this lawsuit and suffer from the same defect. All of the frames were manufactured by the same corporation (Dana Holding Corporation) pursuant to the same defective process."

The class action was settled in May 2017. The terms of the settlement included extending warranty coverage to 12 years from first use for a Frame Inspection and Replacement Program. The settlement was widely reported by news media.¹²

Both third and fourth-generation 4Runner vehicles were built in Japan and are not equipped with frames manufactured by Dana. Although private litigation can be a relevant source of information to consider in the course of examining a potential vehicle defect in many cases, the petitioner has not demonstrated that the litigation he cites here supports the grant of his petition.

Complaint analysis: The petitioner alleged that his analysis of NHTSA's complaint database revealed evidence supporting his claim of premature and excessive frame corrosion in MY 2002 through 2006 Toyota 4Runner vehicles, and that differences in field experience between third- and fourth-generation 4Runner vehicles provide further evidence suggesting a design or manufacturing defect in the fourth-generation products. The petitioner claims that third-generation Toyota 4Runners "do not appear to

¹⁰ *Burns v. Toyota Motor Sales USA Inc.*, Case No. CV 14-2208 (W.D. Ark.), <http://www.toyotaframesettlement.com/>.

¹¹ *Brian Warner et al v. Toyota Motor Sales USA Inc., et al.*, Case No. 2:18-cv-02171-FMO-FFM, in the U.S. District Court for the Central District of California, <http://www.toyotaframesettlement.com/>.

¹² Reuters, *Toyota to settle U.S. truck rust lawsuit for up to \$3.4 billion*, November 12, 2016, <https://www.reuters.com/article/us-toyota-settlement-idUSKBN1370PE>.

experience the premature and excessive frame corrosion.”¹³ The petitioner stated their belief that “Any frame specification changes between generations may help identify the root cause(s) of the problem.”¹⁴

ODI’s analysis of consumer complaint data related to frame corrosion in fourth-generation Toyota 4Runner vehicles has not found evidence of a failure trend indicating a potential design or manufacturing defect leading to premature failures. Rather, the data tends to show complaint trends occurring late in vehicle life in high corrosion regions. Relatively few complaints involved suspension detachments, and those that did were spread among multiple suspension links, each occurring in older vehicles operated in high corrosion regions. Finally, ODI finds no meaningful difference between frame corrosion complaint trends and related suspension detachment allegations in third- and fourth-generation 4Runner vehicles.

4Runner complaint trends lag trends for the Dana frame vehicles by several years. Through the end of 2008, the year of Toyota’s first field action for Dana frame vehicles, NHTSA had received 150 complaints for Dana frame vehicles and just 3 for 4Runner vehicles (none involving the subject fourth-generation 4Runner vehicles). By the end of 2010, NHTSA had received 716 complaints for the Dana frame vehicles and just 36 for 4Runner vehicles (only 5 involving the subject fourth-generation vehicles).

¹³ Gary Weinreich letter to Stephen Ridella, Ph.D., Director, Office of Defects Investigation, August 28, 2018.

¹⁴ *Ibid.*

Figure 1 shows the vehicle age distributions of frame corrosion complaints to NHTSA for Toyota 4Runner vehicles, Toyota Dana frame vehicles, and peer body-on-frame vehicles. The chart on the left

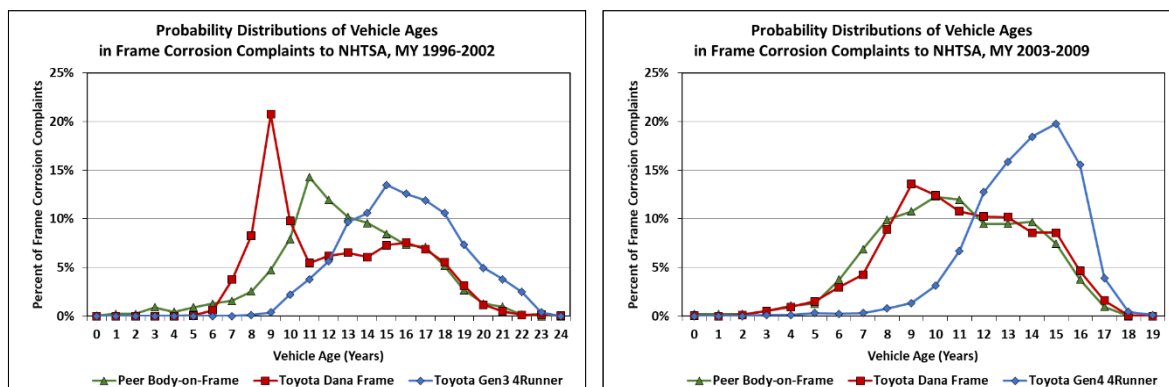


Figure 1. Probability distributions of vehicle ages in frame corrosion complaints to NHTSA for MY 1996-2002 vehicles (left) and MY 2003-2009 vehicles (right).

shows the distributions for MY 1996 through 2002 vehicles (i.e., third-generation 4Runner compared with peers) and the chart on the right shows the distributions for MY 2003 through 2009 vehicles (i.e., fourth-generation 4Runner compared with peers).

In both age groups, the complaint age distributions for the Toyota 4Runner vehicles lag the distributions of the Toyota Dana frame and peer body-on-frame vehicles by several years. The complaints peak at 15 years-in-service for the third-generation Toyota 4Runner vehicles, 6 years after the peak for the Dana frame vehicles and 4 years after the peak for the peer body-on-frame vehicles. The complaints also peak at 15 years-in-service for the fourth-generation Toyota 4Runner vehicles, 6 years after the peak for the Toyota Dana frame vehicles and 5 years after the peak for the peer body-on-frame vehicles.

Figure 2 shows the cumulative age distributions of frame corrosion complaints to NHTSA for the same vehicle sets. The 4Runner complaints occur later in the vehicle age than the Toyota Dana frame and peer body-on-frame complaints. Only about 3 percent of the complaints for the third-generation 4Runner vehicles occurred within 10 years-in-service, compared with 43 percent of the Toyota Dana frame vehicle complaints and 21 percent of the peer body-on-frame vehicle complaints for the same model year range. For the MY 2003 through 2009 vehicles, approximately 6 percent of complaints for

the Toyota 4Runners occurred within 10 years, compared with 45 percent for the Toyota Dana frame vehicles and 47 percent for the peer body-on-frame vehicles.

total ODI’s analysis of consumer complaints received by NHTSA through March 7, 2022, identified a of

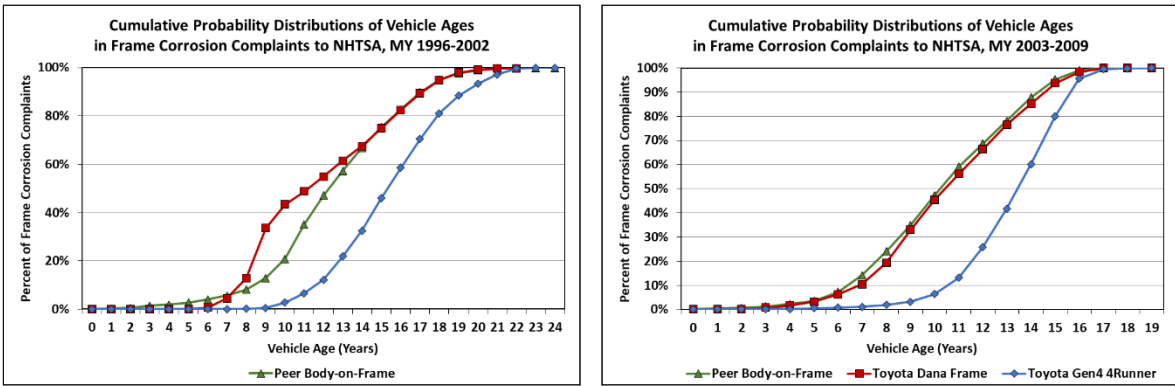


Figure 2. Cumulative probability distributions of vehicle ages in frame corrosion complaints to NHTSA for MY 1996-2002 vehicles (left) and MY 2003-2009 vehicles (right).

1,024 records that appear to be related to frame corrosion in fourth-generation Toyota 4Runner vehicles, including 70 involving alleged detachments of front or rear suspension links. Both the overall complaints and those reporting suspension link detachments primarily involve older vehicles in high-corrosion states. No patterns or trends were identified for any specific suspension link. The radiator support bracket was the most common location for frame perforation damage in reports that included sufficient information to assess damage location. This part can be serviced separately and does not present any crash avoidance or crashworthiness safety concerns. The complaints describe general underbody corrosion damage indicative of normal, end-of-life wear-out failures from long duration exposures to severe, corrosive environments.

Table 1 provides a breakdown of the complaints reporting suspension detachments by the suspension component. The detachment failures include two minor crashes and no verified injury allegations.

	Count	Average Age (Yrs)	Alleged Crashes	Alleged Injuries
Lower Control Arm, Front	15	13.1	2	0
Lower Control Arm, Rear	38	14.1	0	0

Upper Control Arm, Rear	6	13.3	0	0
Lateral Control Rod, Rear	2	10.5	0	0
Sway Bar, Rear	2	13.5	0	0
Unknown	7	16.3	0	0
Total	70	14.1	2	0

Table 1. Detachments While Driving by Suspension Link.

ODI's analysis of NHTSA complaint data finds similar age-adjusted trends in the field experience of the third and fourth-generation 4Runner vehicles. The third-generation 4Runner vehicles have more than double the allegations of suspension link detachments than the fourth-generation 4Runners. The difference appears to be attributable to the greater exposure time of the third-generation vehicles. Analysis of suspension link failures by vehicle age showed similar rates for the third- and fourth-generation products through 15 years of service. In both generations, the failures are concentrated in states with the greatest use of deicing salts to treat road surfaces in winter months. 96 percent of the failures involved vehicles owned or previously registered in states with the greatest use of deicing salts to treat road surfaces in winter months ("Salt states").

Complaints for both generations of 4Runners appear to have been influenced by news about Toyota's field actions for the Sequoia, Tacoma and Tundra vehicles equipped with frames supplied by Dana. Toyota's field actions were referenced in 203 of the fourth-generation 4Runner complaints. Furthermore, 699 or two thirds (68 percent) of the fourth-generation 4Runner complaints were received after news of NHTSA opening this defect petition evaluation on August 7, 2018.

Conclusion: After reviewing the available data, ODI has not identified evidence of a defect trend for premature corrosion-related failure of frame structural components in the vehicles that the petitioner has identified. Contrary to the petitioner's primary allegation, the vehicles are not equipped with frames manufactured by the same supplier as Toyota products that have been included in previous field actions by the company addressing frame corrosion concerns. The frames in those vehicles exhibited failure

trends before reaching 10 years in service, several years prior to the current trends evident in the subject 4Runner vehicles.

Analysis of the age distributions of corrosion-related suspension link failures in the subject 4Runner vehicles shows late-life patterns after well over 10 years of exposure to severe corrosion environments. Incidents of corrosion damage that have resulted in failure of underbody components while driving appear to have developed progressively over many years with ample opportunity for detection and repair. This appears to be indicative of normal wear and tear failures, and we have not found evidence of a defect related to premature or excessive corrosion failures.

ODI has not identified any serious crashes or injuries associated with corrosion-related failure of frame structural components while driving in a population of vehicles that currently ranges from 15 to 19 years old. Accordingly, the Agency is denying the petition.

Authority: 49 U.S.C. 30162(d); delegations of authority at CFR 1.50 and 501.8.

Anne L. Collins,

Associate Administrator for Enforcement.

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